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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,855	11/19/2003	Bin Zhang	200310852-1	7102

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EXAMINER

PRETLOW, DEMETRIUS R

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/716,855	ZHANG, BIN	
	Examiner	Art Unit	
	Demetrius R. Pretlow	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 and 26-30 is/are allowed.
- 6) ☒ Claim(s) 21 is/are rejected.
- 7) ☒ Claim(s) 11,22-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-19/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed November 19, 2003 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because C. Henning, "models and Methods for Clusterwise Linear Regression" does not have a publication date. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Objections

Claim 11 is objected to because of the following informalities:

In line 4, it appears that the word --of-- is missing after --each--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Golub et al. (US 2004/0009489). Golub et al. teach a dataset (Note paragraph 130, lines 3); Golub et al. teach a means (all functions are performed by the computer system, paragraph 17) for generating a plurality of different functions (hierarchical clustering and probabilistic clustering) that correlate datapoints of the dataset; Note paragraph 129, lines 1-5; paragraph 134, lines 1-7. Golub et al. teach a means (all functions are performed by the computer system, paragraph 17) for classifying new data into the dataset with respect to the plurality of different functions. Note paragraph 33, lines 5-6.

Allowable Subject Matter

Claims 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In reference to claim 22, the best prior art of record particularly Golub et al. (US 2004/0009489) does not teach means for predicting one or more values for a variable parameter associated with input values of the new data.

Claims 1-20, 26-30 are allowed.

The primary reason for the allowance of claims 1-8 is the inclusion of the limitations of an generating a plurality of different functions that correlate datapoints of a dataset

through a regression clustering algorithm', and determining directives by which to categorize new data into the dataset through a classification algorithm. It is these limitations found in each of the claims, as they **are claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 9-16 is the inclusion of the method step of based upon the different functions, determining classification directives by which to group new data into the dataset', and based upon the classification directives, selecting one of the functions to predict a value of a variable parameter associated with one or more known input values of the new data. It is these step found in each of the claims, as it is **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 17-20 is the inclusion of the method step of receiving new data associated with the dataset, wherein the new data comprises known input values for a first set of the variable parameters and is substantially absent of values for a second set of the variable parameters', and determining a plurality of possible values for at least one value of the second set of the variable parameters based upon the known input values of the first set of variable parameters and the plurality of different functions. It is this steps found in each of the claims, as it is **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

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The primary reason for the allowance of claims 26-30 is the inclusion of the limitations of an a processor configured to: regressively cluster the dataset to generate functions that correlate datapoints of the dataset; and determine classifiers by which to correlate new data with respect to the generated functions. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (703) 272-2278. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Demetrius R. Pretlow

Demetrius Pretlow

3/21/05

Michael Nghiem

MICHAEL NGHIEM
PRIMARY EXAMINER